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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/591,912

01/19/2007

Jacques-Yves Bourgon

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12/15/2008

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

JENNINGS, STEPHANIE M

ART UNIT

PAPER NUMBER

4135

NOTIFICATION DATE

DELIVERY MODE

12/15/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/591,912	Applicant(s) BOURGON ET AL.	
	Examiner STEPHANIE JENNINGS	Art Unit 4135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 September 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20060907</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the center-to-center spacing, E_k , center-to-center spacing E_x , and “ E_l ” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters “2” and “3” have both been used to designate “cassettes”, and reference characters “ E_x ” and “ E_k ” have both been used to designate “centre-to-centre spacing.” Corrected

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drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to because the graphs in figures 2 and 3 require proper labels for each data set and axes. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: lack of headings for sections and use of British English spelling variation of "centre" instead of American English spelling variation of "center."

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Reference characters "E_n" and "E₁" are used in the claim language, but never explicitly identified.

Regarding claim 1, the phrase "optionally" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

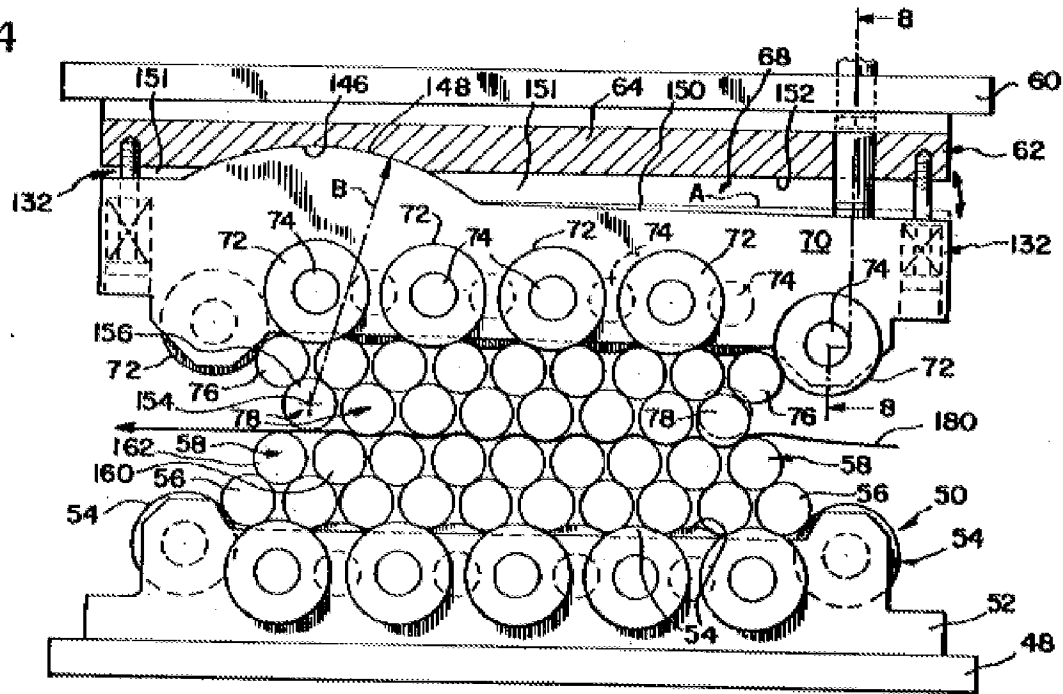
1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bradlee US Patent No. 4,635,458.

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Bradlee teaches:

FIG - 4

Limitations from claim 1, tensionless leveller (figure 4) intended for levelling a metal strip (180), having an entry and an exit, comprising $n+1$ motorized rolls (54, 56, 58, 72, 76, 78), of the type comprising two superposed cassettes (48, 60) each supporting at least $n/2$ rolls (54, 56, 58, 72, 76, 78) of constant radius R , offset with respect to one another and placed alternately above and below the path of the strip (180), the axis of each of the rolls (54, 56, 58, 72, 76, 78) of one cassette (48, 60) being separated from the axis of the immediately successive roll (54, 56, 58, 72, 76, 78) of the other cassette by a centre-to-centre spacing E_k , in which:

for k from 2 to 4, $R/E_k = R/E_1$;

for k from $n-3$ to n , $R/E_k = R/E_n$ and $R/E < R/E_1$; and

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for k from 5 to $n-1$, $R/E_n \leq R/E_k \leq R/E_1$, and $R/E_k \leq R/E_{k+1}$, said leveller (figure 4) optionally including means for adjusting the centre-to-centre spacings E_k (column 2, lines 61-65) (column 3, lines 5-64).

Bradlee discloses the claimed invention except for the center-to-center spacing ratios. It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the apparatuses with precise center-to-center spacing ratios, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Limitations from claim 2, leveller (figure 4) according to claim 1, in which $n \geq 8$ (column 3, lines 5-64).

Bradlee discloses the claimed invention except for explicit enumeration of the rolls. It would have been obvious to one having ordinary skill in the art at the time the invention was made to add additional rolls to the invention, since it has been held that mere duplication of essential working parts of a device involve only routine skill in the art. Additional rolls to the leveller would result in a smoother, more defect-free product. *In re Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Limitations from claim 3, leveller (figure 4) according to either of claims 1 and 2, in which, when the thickness of the strip (180) to be levelled is between 0.5 and 3 mm, $14 \leq n \leq 22$ (column 3, lines 5-64).

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Bradlee discloses the claimed invention except for the optimal range of metal strip thickness. It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the invention for a specific metal strip thickness, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Limitations from claim 4, leveller (figure 4) according to either of claims 1 and 2, in which, when the thickness of the strip (180) is between 3 and 15 mm, $10 \leq n \leq 16$ (column 3, lines 5-64).

Bradlee discloses the claimed invention except for the optimal range of metal strip thickness. It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the invention for a specific metal strip thickness, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Limitations from claim 5, leveller (figure 4) according to any one of claims 1 to 4, in which:

for k from 1 to x, $0.90 \leq R/E_k \leq 0.95$; and

for k from x+1 to n, $0.70 \leq R/E_k \leq 0.80$. (column 3, lines 5-64).

Bradlee discloses the claimed invention except for the center-to-center spacing ratios. It would have been obvious to one having ordinary skill in the art at the time the invention was

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made to design the apparatuses with precise center-to-center spacing ratios, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Limitations from claim 6, leveller (figure 4) according to any one of claims 1 to 4, in which:

for k from 1 to x, $0.90 \leq R/E_k \leq 0.95$;

one of the centre-to-centre spacings E_x , where $5 \leq x \leq n-4$, being such that:

$0.80 \leq R/E_x \leq 0.90$;

and for k from x+1 to n, $0.70 \leq R/E_k \leq 0.80$. (column 3, lines 5-64)

Bradlee discloses the claimed invention except for the center-to-center spacing ratios. It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the apparatuses with precise center-to-center spacing ratios, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Limitations from claim 7, leveller (figure 4) according to any one of claims 1 to 4, in which:

for k from 1 to x, $0.90 \leq R/E_k \leq 0.95$;

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one of the centre-to-centre spacings E_x , where $5 \leq x \leq n-4$, being such that:

$$0.80 \leq R/E_x \leq 0.90, \text{ and } 0.75 \leq R/E_{x+1} \leq 0.85; \text{ and}$$

for k from $x+2$ to n , $0.70 \leq E_k \leq 0.80$. (column 3, lines 5-64)

Bradlee discloses the claimed invention except for the center-to-center spacing ratios. It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the apparatuses with precise center-to-center spacing ratios, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Limitations from claim 8, method for levelling a metal strip (180) in which a leveller (figure 4) according to any one of claims 1 to 7 is used, leveller in which the degree of plastic deformation is at least 60% and at most 90%. (column 1, lines 10-23).

Bradlee discloses the claimed invention except for the optimal range of pre-levelled strip deformation. It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the invention to level a specific range of strip deformation, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233

Limitations from claim 9, levelling method according to claim 8, in which the metal strip (180) is a steel strip (column 1, lines 10-11).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHANIE JENNINGS whose telephone number is (571)270-7392. The examiner can normally be reached on M-F, 7:30 am-5 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William M. Brewster can be reached on (571)272-1854. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. J./
Examiner, Art Unit 4135
December 3, 2008

/William M. Brewster/
Supervisory Patent Examiner, Art Unit 4135